



REGIONAL GROUND & AVIATION SAFETY NEWSLETTER

November 2014



In this Issue: Aviation Safety- History of the Checklist (Jim Truitt)

Ground Safety- Recent Events (Kevin Gappert)

History of the Checklist

On October 30, 1935, at Wright Air Field in Dayton, Ohio, the U.S. Army Air Corps held a flight competition for airplane manufacturers vying to build its next-generation long-range bomber. It wasn't supposed to be much of a competition. In early evaluations, the Boeing Corporation's gleaming aluminum-alloy Model 299 had trounced the designs of Martin and Douglas. Boeing's plane could carry five times as many bombs as the Army had requested; it could fly faster than previous bombers, and almost twice as far.

A Seattle newspaperman who had glimpsed the plane called it the "flying fortress," and the name stuck.

The "competition" was regarded as a mere formality. The Army planned to order at least sixty-five of the aircraft. Substantially more complex than previous aircraft, the new plane required the pilot to attend to the four engines, retractable landing gear, new



New wing flaps, electric trim tabs that needed adjustment to maintain control at different airspeeds, and constant speed propellers, whose pitch had to be regulated with hydraulic controls, among other features.

While doing all this, Hill had forgotten to release a new locking mechanism on the elevator and rudder controls. The test aircraft crashed on takeoff. An investigation revealed that nothing mechanical had gone wrong. The crash had been due to "pilot error," the report said.



The Boeing model was deemed, as a newspaper put it, "too much airplane for one man to fly." The Army Air Corps declared Douglas's smaller design the winner. Boeing nearly went bankrupt. Still, the Army purchased a few aircraft from Boeing as test planes, and some insiders remained convinced that the aircraft was flyable. So a group of test pilots got together and considered what to do.

They could have required Model 299 pilots to undergo more training.

But it was hard to imagine having more experience and expertise than Major Hill, who had been the U.S. Army Air Corps' Chief of Flight Testing. Instead, they came up with an ingeniously simple approach: they created a pilot's checklist, with step-by-step checks for takeoff, flight, landing, and taxiing. Its mere existence indicated how far aeronautics had advanced.

In the early years of flight, getting an aircraft into the air could be nerve-racking, but hardly complex. Using a checklist for takeoff would no more have occurred to a pilot than to a driver backing a car out of the garage... But this new plane was too complicated to be left to the memory of any pilot, however expert. With the checklist in hand, the pilots went on to fly the Model 299 a total of 18 million miles without one accident.

Complacency or a false sense of security should not be allowed to develop as a result of long periods without an accident or serious incident. An organization with a good safety record is not necessarily a safe organization.

Region 8 Ground Safety Newsletter, November 2014

Greetings to you all from your RO Fire Safety shop! For this newsletter we have opted to provide some highlights which were acquired from attending various meetings and conference calls:

- **LESSONS LEARNED.** 1) Feedback provided to the Lessons Learned shop have included the request to have Rapid Lesson Sharing included in 6 Minutes for Safety topics to infuse more variety. 2) Other feedback included much confusion from so many reporting mediums (i.e. Safenet/Safecom; Rapid Lesson Sharing; Lessons Learned Review; Non-Serious Accident Investigation; Facilitated Learning Analysis- Basic & Complex; Coordinated Response Protocol; etc.). The Lessons Learned shop is working toward streamlining the story submission process, where folks can just submit the information and not have to worry about what format it will be output as that will be done by the Lessons Learned staff (via peer review).
- **POLICY.** 1) Due to numerous partners involved in updating our Chainsaw policy, the last segment has included a public comment period posted on the Federal Register. The working group responsible for chainsaw policy is hopeful to get the updates into the directive system by February. Expect little change from the last draft. 2) Policy addressing Red Lights and Sirens is already in directives at the Washington Office, and leadership is hoping to see that incorporated by the end of the calendar year. 3) A request for clarification has been pushed up to leadership concerning the following: Do regional employees have to follow their home regional policy (if it is more restrictive than national policy) when they are on assignment in another region with less restrictive policy?
- **EQUIPMENT.** 1) "Interagency Transportation Guide for Gasoline, Mixed Gas, Drip-Torch Fuel, and Diesel" PMS 442 addresses the phase out of the current drip torch, and a new standard implemented by 2019. New torch standards address meeting DOT specifications, which include UN stamping, improved vent tube, labels, placarding, red paint, etc. Older versions should be phased out by attrition. 2) A next generation fire shelter is also on the schedule for prototype testing by 2016. MTDC is in the process of evaluating submitted fabrics and materials at this time.
- **SAFETY.** 1) A Risk Management "Summit" is being planned to work toward establishing standardization and curriculum. 1-2 representatives will be invited to participate from a wide mix of groups. Select participants will likely include safety, risk management, Fire Director leadership, IMT, hand crew, smokejumper, aviation, NIMO, etc. Various topics the summit participants will address include: values/principles; definitions; processes; matrix/tools; critical thinking; sense making; training; etc. 2) The next facilitated segment of the agency Safety Journey is starting with a goal of having completed the employee "Safety Engagement 3" by mid-February. Focus this round will be on personal and organizational resilience, and workload-safety balance.
- **MEDICAL.** 1) Forest Service FAM medical leadership has shared their intent to form an EMS working group to better address medical standards. They will work with interagency partners, OGC, OPM, etc. on a variety of topics, such as a program which would allow our EMT's to work under a medical director nationally when on assignment (within scope of employment) and not be limited to within state only. 2) The medical group is hoping to see a new Health Screen Questionnaire by next field season, as well as an online system of form submission and approval. 3) NWCG will be tasking MTDC with updating the very outdated Work Capacity Test Administration Guide rewrite, hopefully this winter. 4) Recommendations for those with burn gel blankets....do not replace them when expired. The gel works to cool the burn, but for third degree burns the gel has to later be scrubbed out of the wound (very painful) so cooling with water and using dry sterile coverings when necessary is current guidance.
- **DRUG TESTING.** Determination of primary and secondary positions which are to be included in testing is completed and was coordinated with Labor Union review. Management and labor are working through finalizing the protocols for implementation, but still no timeline on when drug testing will be enacted.